

~~Claims~~

I claim

1. A controlled release composition including pellets, each comprising an inner core, which core comprises, or is coated with, a drug, which drug possesses (a) a free acid group which can be converted into an alkali metal salt and (b) a pKa in the range 2.0 to 9.0, which inner core is subsequently coated with a rate-controlling membrane that determines drug release, wherein the drug is present as a salt that displays higher solubility at pH 4.5. to 8.0 than the corresponding compound containing a free acid group, and wherein the composition is adapted to prevent release of drug until the composition reaches the terminal ileum or the colon.
2. A composition as claimed in Claim 1 wherein the drug is a thromboxane synthase A₂ inhibitor or a thromboxane A₂/prostaglandin endoperoxide receptor antagonist.
3. A composition as claimed in Claim 2 wherein the drug is ridogrel.
4. A composition as claimed in any one of Claims 1 to 3, wherein the rate-controlling membrane comprises a material which forms a water-insoluble but water-permeable layer and from which release of drug is by diffusion through the layer.
5. A composition as claimed in Claim 4, wherein the rate-controlling membrane is formulated from a methacrylate copolymer or ethylcellulose.
6. A composition as claimed in Claim 5, wherein the rate-controlling membrane is formulated from ethylcellulose or Eudragit NE30D.

7. A composition as claimed in Claim 6 where the rate-controlling membrane is ethylcellulose.
8. A composition as claimed in any one of the preceding claims, wherein the inner core is a sugar sphere.
9. A composition as claimed in any one of the preceding claims, wherein the salt is at least 10 times more soluble than the free acid form of the drug at pH 4.5 to 8.0 at 37°C.
10. A composition as claimed in any Claim 9, wherein the salt is at least 100 times more soluble than the free acid form of the drug.
11. A composition as claimed in any one of the preceding claims, wherein the salt is an alkali metal salt.
12. A composition as claimed in Claim 11, wherein the alkali metal is sodium or potassium.
13. A composition as claimed in any one of the preceding claims wherein the pellets are administered in a starch capsule coated with a combination of polymethacrylates that is designed to disintegrate and release the pellets in the terminal ileum or in the colon.
14. A composition as claimed in any one of the preceding claims wherein the drug is used for the treatment of ulcerative colitis, Crohn's disease, irritable bowel syndrome, inflammatory bowel disease.

15. A process for the preparation of a composition according to any one of the preceding claims which comprises making a salt of the drug and coating said salt onto the inner cores.

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5 16. A process as claimed in Claim 15, wherein the salt is prepared as part of a preparation process for the coating of the inner cores.

17. A method of improving the release profile of a drug with a rapidly changing solubility in the pH range 4.5 to 8.0, which comprises
10 administering a composition according any one of Claims 1 to 14 to a patient, preferably a human patient.

18. The use of a composition according any one of Claims 1 to 14 in the manufacture of a medicament for use in the improved release profile of a
15 drug with a rapidly changing solubility in the pH range 4.5 to 8.0.

19. A method of treatment of ulcerative colitis, Crohn's disease, irritable bowel syndrome and/or inflammatory bowel disease which method comprises administering a composition according to any one of Claims 1 to
20 14 to a patient, preferably a human patient.

20. The use of a composition according any one of Claims 1 to 14 in the manufacture of a medicament for the treatment of ulcerative colitis, Crohn's disease, irritable bowel syndrome and/or inflammatory bowel
25 disease.

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